AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-18 (cancelled)

Claim 19 (Previously Presented): A surface defect inspecting method comprising the steps of:

irradiating an irradiation light having a predetermined pattern on an inspection target surface;

imaging the surface irradiated with the irradiation light; and

inspecting the inspection target surface based on an obtained image of the inspection target surface,

wherein the irradiation light irradiated from an irradiation face has a mesh-like pattern including meshes of a same shape, each mesh having an irradiation area smaller than a non-irradiation area in a plane normal to an optical axis; and

the inspection target surface is inspected based on lightness/darkness information of an image area in the obtained image corresponding to a non-irradiated area in the inspection target surface.

Claim 20 (Previously Presented): The surface defect inspecting method according to claim 19, wherein if an image obtained is a normal obtained image when the irradiation light is irradiated on a normal inspection target surface and a brightness of the irradiation area in the normal obtained image is defined as a high brightness whereas a brightness of the non-irradiation area is defined as a low brightness; then,

an intermediate brightness area which is present within the obtained image and which is an area of intermediate brightness between the high brightness and the low brightness is used as a target area.

Claim 21 (Previously Presented): The surface defect inspecting method according to claim 19, wherein an image area corresponding to the irradiation area in the inspection target surface is extracted as continuous light areas, and the continuous light areas are precluded from a target area.

Claim 22 (Previously Presented): The surface defect inspecting method according to claim 19, wherein the image area corresponding to the non-irradiated area of the inspection target surface is extracted for each enclosed dark area, and if an isolated light area is present within the enclosed dark area, the isolated light area is determined as a target area.

Claim 23 (Previously Presented): The surface defect inspecting method according to claim 19, wherein in case the inspection target surface is a curved surface, the mesh-like distribution of the irradiation light from the irradiation face corresponding to a shape of the curved surface of the inspection target surface is set as a circular or a regular polygonal mesh-like pattern in the obtained image.

Claim 24 (Previously Presented): A surface defect inspecting apparatus comprising:

an irradiating means for irradiating an irradiation light having a predetermined pattern on an inspection target surface;

an imaging means for imaging the inspection target surface irradiated with the irradiation light; and

an image processing means for effecting an image processing on an image obtained by the imaging means,

wherein the irradiating means irradiates, from an irradiation face thereof, an irradiation light having a mesh-like pattern including meshes of a same shape, each mesh having an irradiation area smaller than a non-irradiation area in a plane normal to the optical axis; and

the image processing means, in the image processing, processes lightness/darkness information of an image area corresponding to a non-irradiated area in the inspection target surface.

Claim 25 (Previously Presented): The surface defect inspecting apparatus according to claim 24, wherein if an image obtained is a normal obtained image when the irradiation light is irradiated on a normal inspection target surface and a brightness of the irradiation area in the normal obtained image is defined as a high brightness whereas a brightness of the non-irradiation area is defined as a low brightness; the image processing means includes an intermediate brightness area extracting means for extracting an intermediate brightness area which is present within the obtained image and which is an area of intermediate brightness between the high brightness and the low brightness.

Claim 26 (Previously Presented): The surface defect inspecting apparatus according to claim 24, wherein the irradiation light of the irradiating means is formed by a plurality of light emitting elements distributed in a mesh-like pattern.

Claim 27 (Previously Presented): The surface defect inspecting apparatus according to claim 24, wherein the irradiation light of the irradiating means is formed through transmission between narrow slits distributed in a mesh-like pattern.

Claim 28 (Previously Presented): The surface defect inspecting apparatus according to claim 24, wherein in correspondence with a curved surface shape of the inspection target surface, the mesh-like distribution of the irradiation light from the irradiation face corresponding to the curved surface shape of the inspection target surface is set as a circular or a regular polygonal mesh-like pattern in the obtained image.

Claim 29 (Currently Amended): A surface inspecting apparatus comprising:

a plurality of light emitting elements arranged in a predetermined layout pattern;

an imaging camera for imaging an inspection target surface irradiated with an irradiation light of the light emitting elements; and

an outputting portion for outputting obtained image information of the imaging camera,

wherein the layout pattern comprises a mesh-like repetitive layout pattern which repeats a continuous arrangement of the light emitting elements along a predetermined direction thereby leaving a dark face of a predetermined shape therewithin; ~~and~~ the imaging camera is disposed so as to receive, on at least one dark face, the irradiation light of each light emitting element reflected off an area opposed to the dark face of the inspection target surface; and an emitting area of each of the light emitting elements is smaller than an area of the dark face.

Claims 30-36 (Cancelled)